REMARKS/ARGUMENTS

The Applicants originally submitted Claims 1-42 in the application. In the present response, the Applicants have amended Claims 1, 3, 15, 17, and 29. Support for the amendment can be found, for example, in paragraphs 8, 31, and 53-54 of the original specification. No other claims have been canceled or added. Accordingly, Claims 1-42 are currently pending in the application.

I.   Rejection of Claims 1, 15, and 29 under Non-Statutory Double Patenting

The Examiner has provisionally rejected Claims 1, 15, and 29 on the grounds of non-statutory obviousness-type double patenting as being unpatentable over claims 1 and 11 of co-pending Application No. 10/782,080 in view of U.S. Patent No. 5,568,644 to Nelson, *et al.* In response, the Applicants hereby submit a terminal disclaimer. Accordingly, the Applicants respectfully request the Examiner to withdraw the non-statutory obviousness-type double patenting rejection of Claims 1, 15, and 29 and allow issuance thereof.

II.   Rejection of Claims 1-3, 7-12, 14, and 29-42 under 35 U.S.C. §101

The Examiner has rejected Claims 1-3, 7-12, 14, and 29-42 under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. In response, the Applicants have amended independent Claims 1 and 29 to more clearly point out a data structure embodied in a computer-readable media and a memory to control propagation of status indicators in a register structure, respectively. Thus, amended independent Claim 1 now describes a data structure which causes functional change in the processor and amended independent Claim 29 now describes a

useful, concrete, and tangible result, *i.e.*, controlling the propagation of status indicators in a register structure. As such, both Claim 1 and 29 now comply with §101. Accordingly, the Applicants respectfully request the Examiner to withdraw the §101 rejection of Claims 1-3, 7-12, 14, and 29-42 and allow issuance thereof.

III.   Rejection of Claims 1, 2, 5-11, 13, 15-16, 19-25, 27, 29-31, 33-35, and 39-42 under 35 U.S.C. §102

The Examiner has rejected Claims 1, 2, 5-11, 13, 15-16, 19-25, 27, 29-31, 33-35, and 39-42 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,568,644 to Nelson, *et al.* The Applicants respectfully disagree since Nelson, as applied by the Examiner, does not teach a condition management data structure associated with a hierarchical register consolidation structure as recited in independent Claims 1, 15, and 29.

The Examiner relies on Figure 1A and column 3, lines 9-15 of Nelson to teach a condition management structure associated with a hierarchical register consolidation structure. (*See* Final Rejection, page 9.) Here Nelson teaches the interrupt dispatching portion is incorporated into a hierarchical tree referred to as the Interrupt Source Tree (IST). The Examiner asserts this "hierarchical tree" provides an abstraction of a hierarchy used for managing interrupts. (*See* Final Rejection, page 9.) Assuming *arguendo* this to be true, Nelson does not teach a <u>separate</u> data structure associated with this hierarchical tree as is presently claimed. The condition management data structure as presently claimed is such a data structure that is both separate and associated with a hierarchical tree, *i.e.*, the hierarchical register consolidation structure. As such, Nelson does not

anticipate independent Claims 1, 15, and 29 and Claims that depend thereon. Accordingly, the Applicants respectfully request the Examiner to withdraw the §102(b) rejection of Claims 1, 2, 5-11, 13, 15-16, 19-25, 27, 29-31, 33-35, and 39-42 and allow issuance thereof.

IV.   Rejection of Claims 3-4, 12, 14, 17-18, 26, 28, 32, and 36-38 under 35 U.S.C. §103

The Examiner has rejected Claims 3-4, 12, 14, 17-18, 26, 28, 32, and 36-38 under 35 U.S.C. §103(a) as being unpatentable over Nelson and in further view of: U.S. Patent No. 5,495,615 to Nizar, *et al.* for Claims 3-4, 17 and 18; "Operation System Concept" by Silberschatz, *et al.* for Claims 12 and 26; U.S. Patent No. 5,530,874 to Emery, *et al.* for Claims 14 and 28; U.S. Patent No. 6,584,532 to Francis, *et al.* for Claim 32; U.S. Patent No. 5,129,083 to Cutler, *et al.* for Claim 36; U.S. Patent No. 5,995,736 to Aleksic, *et al.* for Claim 37; and U.S. Patent No. 6,883,053 to Shinagawa, *et al.* for Claim 38. The Applicants respectfully disagree.

As established above, Nelson, as applied by the Examiner, does not teach a condition management data structure associated with a hierarchical register consolidation structure as recited in independent Claims 1, 15, and 29. Furthermore, it does not suggest the same. On the contrary, Nelson explicitly discloses a single hierarchical tree (IST) without an associated data structure embodied in a computer-readable media of a processor that employs a hierarchical tree. Nelson relates to interrupt dispatching (*see* column 1, lines 9-10) but does not appear to be concerned with complex interrupt register structures wherein an associated overlay data structure is helpful in traversing. As such, Nelson does not teach or suggest each element of independent Claims 1, 15, and 29.

The Applicants do not find where the above references cure the noted deficiencies of Nelson. Additionally, the above references have not been cited to cure the noted deficiencies of the independent claims but to teach the limitations of the above noted dependent claims. Thus, the cited combinations do not provide a *prima facie* case of obviousness of independent Claims 1, 15, and 29 and Claims that depend thereon. Accordingly, the Applicants respectfully request the Examiner to withdraw the §103(a) rejection of Claims 3-4, 12, 14, 17-18, 26, 28, 32, and 36-38 and allow issuance thereof.
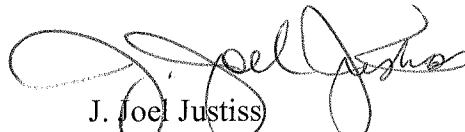
V.   Conclusion

In view of the foregoing amendment and remarks, the Applicants now see all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicit a Notice of Allowance for Claims 1-42.

The Applicants request the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application. The Commissioner is hereby authorized to charge any fees, credits or overpayments to Deposit Account 08-2395.

Respectfully submitted,

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